

Application No.: 09/677,752
Amendment Dated: February 17, 2006
Reply to Office Action of: August 30, 2005

Attorney Docket No.: 71515. 087.999
Customer No.: 35161

AMENDMENTS TO THE SPECIFICATION:

Please replace the following sentence, on page 10, lines 27-30, with:

Figure 5A-E. Full length nucleotide sequence and corresponding deduced amino acid sequence of the PMPE polypeptide of *Chlamydia trachomatis* L2, SEQ ID NO.: 1 and SEQ ID NO.:2.

Figure 6A-E. Full length nucleotide sequence and corresponding deduced amino acid sequence of the PMPI polypeptide of *Chlamydia trachomatis* L2, SEQ ID NO.: 3 and SEQ ID NO.:4.

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SPECIFICATION

The specification has been amended to more accurately comply with the requirements of 37 C.F.R. 1.821-1.825. Figures description of the figures, 5A-E and 6A-E have been amended to identify specific sequences contained therein.

Claim Objection

Claim 125 has been amended replacing "*nisseria*" with "*neisseria*".

Rejection of Claims 107-129 Under 35 U.S.C. § 112, first paragraph Should Be Withdrawn

The present Office Action rejects claims 107-129 under 35 U.S.C. § 112, first paragraph, because the specification, while being enabling for SEQ ID NO.:2, does not reasonably provide enablement for amino acids that are at least 90% identical to SEQ ID NO.:2.

Applicant wishes to point out that claim 107 is solely drawn to a vaccine comprising PMP E polypeptide of a *Chlamydia* ssp. comprising an amino acid sequence of SEQ ID NO.: 2. This claim does not recite at least 90% identical to SEQ ID NO.:2, variants, homologs, degenerates, or derivatives of SEQ ID NO.:2. Moreover, claim 116 is limited to one specific allelic variant which differs from SEQ ID NO.:2 by nine specific amino acids residues in eight regions of the SEQ ID NO.: 2., as previously presented in the response to Office Action filed on November 5, 2002. Therefore there is no basis for the rejection under 35 U.S.C. § 112, first paragraph, as recited in the Office action, mailed on August 30, 2005.

The specification discloses the following:

- (a) the general tolerance to modification and extent of such tolerance;
- (b) a list of fragments which retain the biological activity compared to the intact polypeptide.

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(c) identified specific positions and regions of sequence(s) which can be predictably modified and which regions are critical. The remaining claims have been amended to recite exact SEQ ID numbers supported in the specification.

Thus providing direct support for all of the pending claims.

Rejection of Claims 104 and 125 Under 35 U.S.C. § 112, First Paragraph Should Be Withdrawn

The present Office Action rejects claims 104 and 125 under 35 USC section 112, first paragraph, because the specification, while being enabling for vaccine compositions that comprise an PMP E protein, does not reasonably provide enablement for vaccine compositions with immunogens such as HIV and *Moraxella catarrhalis*.

Applicants submit this rejection is rendered moot by the foregoing amendments and the following comments. In order to further the prosecution of this application, and without acquiescing to the Examiner's rejection and while reserving the right to prosecute the original claims (or similar claims) in the future, Applicants have cancelled claims 104 and 125.

Rejections of Claims 107-122, 124, and 128-129 under 35 U.S.C. § 102 (a), § 102 (b), and § 102 (e) Should Be Withdrawn

The present office action rejects claims 107-122, 124, and 128-129 under 35 USC section 102 (b) as anticipated by Graffais et al (WO 9928475). Additionally, the present office action rejects claims 107-122, 124, and 128-129 under 35 USC section 102 (a) by Probst et al (WO 00/34483) and under 35 USC section 102 (e) as anticipated by Probst et al (U.S. Patent. 6,432,916).

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Applicants respectfully traverse this rejection and request favorable reconsideration and withdrawal of this rejection. Further, Applicants submit this rejection is rendered moot by the foregoing amendments and the following comments.

This rejection is deemed moot in view of the following amendments. The scope of these amended claims are now drawn to a limited number of biosequences. Additionally, the deposited mutant M15 pREP (ATCC No. PTA-2462), contains a MRGS-His₆ domain not taught by the prior art cited. Additionally, upon further review the clear difference between SEQ ID NO. 2, (ATCC No. PTA-2462), and the sequence of this prior art cited is demonstrated. For example, at amino acid sequence position no. 300 of the second sequence (Db), of the sequence alignment provided by the Examiner; Griffais et al. (WO 9928475) discloses sequence "ASSESS", while both SEQ. ID No. 2 and sequence of ATCC No. PTA-2462) disclose "ASSEAS", at nucleotide position no. 272, Query no. 263 on the BLAST sequence alignment, originally filed on December 3, 2001. The prior art cited does not teach the same sequence as both SEQ. ID No. 2 and sequence of ATCC.

Rejection of Claims 125-127 Under 35 U.S.C. § 103 (a) Should Be Withdrawn

The present Office Action rejects claims 125-127 under 35 U.S.C. § 103 (a) as unpatentable over Probst (U.S. Patent. 6,432,916) as applied to claims 107-122, 124, and 128-129, further in view of Murdin et al. (infection and Immunity, Oct 1993, p. 4406-4414).

Upon further review there are clear differences between SEQ ID NO. 2, ATCC No. PTA-2462), and specific fragments, and the sequence of this prior art cited. For example, at amino acid sequence no. 135 of the second sequence (Db), of the sequence alignment provided by the Examiner; Probst discloses position "CCRLFT", while both SEQ. ID No. 2 and sequence of ATCC No. PTA-2462) discloses "CCRPFT", at nucleotide position no. 134 of the BLAST

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sequence alignment, originally filed on December 3, 2001. Probst does not teach the same sequence as both SEQ. ID No. 2 and sequence position of ATCC.

Applicants appreciate the Examiners Indication of claims 94-95, 99-103, and 105-106 being allowed.

In light of the foregoing, Applicant therefore believes all pending claims (94-95, 99-103, 105-108, 111-112, 115-116, 118-124, 126-127, and 130) are in condition of allowance, and respectfully requests such allowance.